

R E M A R K S / A R G U M E N T S

Claims 1 through 13 are in the case.

In the Action, the Examiner has rejected claims 1 through 9, 11 and 12 as being unpatentable over the combination of the Clare et al. and Ohsol et al. U.S. patents 4,789,461 and 5,948,242, respectively. The Examiner's position is that Clare is relevant and teaches a method for removal of water from crude oil where the crude oil is sprayed onto the surface of the heated liquid within a dehydrator and the liquid in the casing is maintained above the distillation temperature for evaporation of water and other hydrocarbons. The application of Clare has also been applied to many of the other features of the specific process of claim 1. The Examiner, in conclusion, states that Clare et al. disclose a process for the dehydration of oil with steps corresponding to the steps presented in this case to achieve a dry crude oil. The Examiner has acknowledged that Clare does not specifically disclose that the dehydrated crude is passed into a stripping or flashing stage to remove diluent from the dehydrated crude. For this reason, the Examiner has applied the Ohsol et al. teachings where the latter reference teaches an upgrading operation where an oil/diluent is heated and passed into a steam stripping zone to remove diluent from the oil product. It is the combination of these steps which leads the Examiner to the conclusion that the claims are obvious. Regarding claims 4, 5, 6, 7, 8, 9, 11 and 12, the combination is also applied.

Applicant respectfully disagrees with the Examiner's position regarding the applicability of Clare et al. and Ohsol et al., particularly in view of the newly presented claim 1. The Examiner's attention is requested to the following position. In Applicant's related cases, one of which the Examiner has identified as U.S. Patent No. 6,372,123 and the co-pending application U.S. S/N 10/011,319, the latter for which a patent has been issued (United States Patent No. 6,849,175), one of the key differences that separated Applicant's technology from the Clare et al. technology is the fact that in Applicant's case, dehydrated crude oil is contacted immediately below the vaporizing surface of the dry crude oil. This is, in fact, a significant advance and is what defined patentable subject matter over Clare et al. in the case of U.S. Patent No. 6,372,123 and which has also

resulted in successful completion of the prosecution in Applicant's copending application no. 10/011,319 (now issued to U.S. Patent No. 6,849,175, February 1, 2005). As discussed in those cases, and in the present application, it is important to maintain the heat enthalpy of the vaporizing surface in order to prevent foaming and all of the other thermo dynamic problems that would be inherent if one did not constantly replenish the vaporizing surface. As the Examiner will appreciate, vaporization of the water from the incoming crude oil to be treated clearly would absorb energy from the vaporizing surface and if the vaporizing surface were not continuously replenished with dry crude oil at a sufficient temperature to vaporize water contacting the surface, the process would effectively encounter significant complications and eventually terminate. Accordingly, in order to have a continuously operating process it is important to recirculate the dehydrated crude for maintaining a surface capable of vaporizing the water.

Significant advantages have been enumerated concerning the process as now presented in the amended claims, including:

- i) improved tolerance for crude oil feed water cuts over the Clare et al. reference;
- ii) operational stability;
- iii) significantly reduced foaming tendency;
- iv) greater precision in the temperature regulation of the feed stream to the dehydrator casing; and
- v) a broader range of applicability of the process to a wider range of heavy oil gravities.

In respect of the Ohsol et al. reference, Applicant submits that Ohsol is simply directed to separation of a low boiling point hydrocarbon from a higher boiling point hydrocarbon. Ohsol et al., therefore, standing on its own would not be sufficient to address the features of claim 1 and therefore, the remaining claims in the case which drive dependency either directly or indirectly from claim 1. Considering the fact that the Clare et al. reference is deficient a significant element which now forms part of claim 1, and considering the points raised by applicant herein previously, it is believed that the combination of Clare et al. and Ohsol et al. are deficient the features set forth in amended

claim 1 and the remaining claims. Applicant respectfully requests entertainment of its position.

In respect of the Examiner's position concerning claim 10 being unpatentable over the combination of Clare et al., in view of Ohsol et al. and Xia et al., Applicant respectfully disagrees. Applicant's position concerning Clare et al. has been set forth herein previously. Xia, as the Examiner has characterized, simply discloses an upgrading process for heavy oil by thermal cracking. It is Applicant's position that in view of the newly presented claims and considering the fact that the Clare et al. reference is absent a key feature which has been recognized as patentable over Clare et al. in Applicant's earlier cases, it is submitted that Xia adds nothing to the combination and that the newly presented claims define over the Xia et al. reference.

Applicant has, in an attempt to advance the application, enclosed a terminal disclaimer concerning U.S. Patent No. 6,372,123. In terms of the position taken with respect to Ohsol et al., it is believed that Ohsol adds nothing to advance the case of obviousness and reconsideration, in view of the enclosed terminal disclaimer, is requested.

Similarly, referring to the Examiner's obvious type double-patenting rejection concerning claims 10, 13, 14, 15, 16, 20, 22, 24 and 25 of copending application 10/011,319 (now United States Patent No. 6,849,175, February 1, 2005), Applicant has enclosed a terminal disclaimer in order to advance the case. Regarding the Ohsol et al. reference, Applicant's comments made previously are also applicable here; the Ohsol et al. reference completely fails to teach anything other than a hydrocarbon stripping process which is vastly different from the newly presented claims in this case.

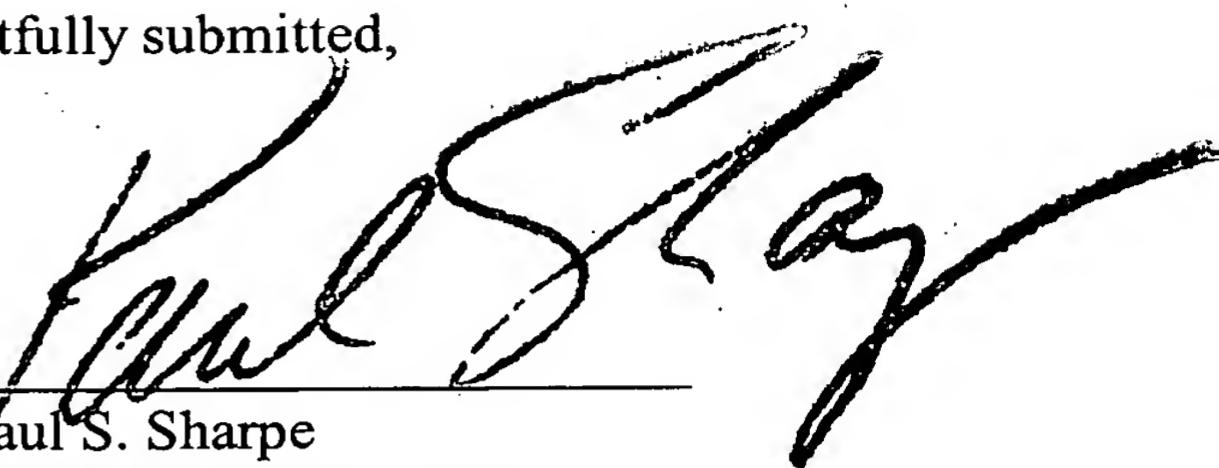
The Examiner's close attention to this amendment is respectfully requested and it is believed that by the amendments made to this case that the claims now define patentable subject matter.

Commissioner for Patents
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Respectfully submitted,

By _____


Paul S. Sharpe
Registration No. 39,493
Attorney for Applicant

PSS/lmf

Address:
OGILVY RENAULT
1981 McGill College Avenue, Suite 1600
Montreal, Quebec H3A 2Y3
Canada
Telephone: (613) 780-8676 (direct)
Facsimile: (613) 230-6706